PTO/SB/08A (Modified)

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| Substitute | e lor loini 1449A/PTO        |       |              | Application Number     | 09/009,837 |  |
| INI        | FORMATION                    | l DI  | SCLOSURE     | Filing Date            | 1/20/1998  |  |
|            | TATEMENT E                   |       |              | First Named Inventor   | Mills      |  |
|            |                              |       |              | Group Art Unit         | 1745       |  |
| ,          | (use as many she             | ets a | s necessary) | Examiner Name          | Langel     |  |
| Sheet      | 1                            | of    | 1            | Attorney Docket Number | 62-226-8AO |  |

| Examiner<br>Initials* | Cite<br>No. <sup>1</sup> | U.S. Patent Document         |                                    |         | Name of Patentee of Applicant of Cited Document | Date of Publication of                | Pages, Columns, Lines, Where Relevant    |  |  |
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| miliais               |                          | Number                       | Kind Code<br>(if knowr             |         | or cited bocument                               | Cited Document<br>MM-DD-YYYY          | Passages or Relevant Figures Appear      |  |  |
| WAL                   |                          | 4 327 071                    |                                    |         | Chiu                                            | 04-27-1982                            |                                          |  |  |
| NAC                   |                          | 4 968 395                    |                                    |         | Pavelle                                         | 11-06-1990                            |                                          |  |  |
| WAL                   |                          | 4,957,727                    |                                    |         | Bogdanovic                                      | 09-18-1990                            |                                          |  |  |
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| Examiner              | Cite                     | Cite Foreign Patent Document |                                    |         | EIGN PATENT DOCUM                               | Date of Publication of Cited Document | Pages, Columns, Lines,<br>Where Relevant |  |  |
| Timudi3               |                          | Office <sup>3</sup> Num      | Kind C<br>ber <sup>4</sup> (if kno |         | Applicant of Cited Document                     | MM-DD-YYYY                            | Passages or Relevant<br>Figures Appear   |  |  |
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Examiner Signature WAYNE A, LANGEL Date Considered 76-0/

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>&</sup>lt;sup>1</sup> Unique citation designation number. <sup>2</sup> See attached Kinds of U.S. Patent Documents. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST. 3) <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

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| J KARSSING. | 3 101 101111 14400/1 10   |       |              | Application Number     | 09/009,837            |  |
| INI         | FORMATION                 | DI    | SCLOSURE     | Filing Date            | 1/20/1998             |  |
| SI          | ATEMENT B                 | BY A  | APPLICANT    | First Named Inventor   | Mills                 |  |
|             |                           |       |              | Group Art Unit         | 1745                  |  |
|             | (use as many she          | ets a | s necessary) | Examiner Name          | Langel                |  |
| Sheet       | 1                         | of    | 2            | Attorney Docket Number | 62-226-8AO            |  |

| OTHER PRIOR ART — NON PATENT LITERATURE DOCUMENTS |               |                                                                                                                                                                                                                                                                 |        |  |  |  |  |
|---------------------------------------------------|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--|--|--|--|
| Examiner<br>Initials*                             | Cite<br>No. 1 | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. |        |  |  |  |  |
| WAL                                               |               | BlackLight Power, Inc., pp. 433-440, 2001. (no month)                                                                                                                                                                                                           | RE(    |  |  |  |  |
| WAL                                               | -             | NEYNABER <i>et al.</i> , "Formation of HeH+ from Low-Energy Collisions of Metastable Helium and Molecular Hyrdogen", <i>J. Chem. Phy.</i> , <b>57</b> , pp. 5128-5137, (Dec. 16, 1972).                                                                         | CEIVED |  |  |  |  |
| WAC                                               | ,             | HOLLANDER et al., "Vacuum ultraviolet emission from microwave plasmas of hydrogen and its mixtures with helium and oxygen", J. Vac. Sci. Technol., 12, pp. 882, (1994), (no month)                                                                              | Ö      |  |  |  |  |
| WAL                                               |               | FUJIMOTO et al., "Ratio of Balmer line intensities resulting from dissociative excitation of molecular hydrogen in an ionizing plasma", J. Appl. Phys., 66, pp. 2315-5319, (1989). (no month)                                                                   |        |  |  |  |  |
| WAL                                               |               | KURUNCZI et al., "Excimer formation in high-pressure microhollow cathode discharge plasmas in helium initiated by low-energy electron collisions", Intl. J. Mass Spectrometry, 205, pp. 277-283, (2001), (no month)                                             |        |  |  |  |  |
| WAL                                               |               | ABDALLAH et al., "The Behavior of Nitrogen Excited in an Inductively Coupled Argon Plasma", J. Quant. Spectrosc. Radiat. Transfer, 19, pp. 83-91, (1978), in onth                                                                                               |        |  |  |  |  |
| WAL                                               |               | FOZZA et al., "Vacuum ultraviolet to visible emission from hydrogen plasma: Effect of excitation frequency", J. Appl. Phys., 88, pp. 20-33, (2000), (no mon)                                                                                                    |        |  |  |  |  |
| WAL                                               |               | HODOROABA et al., "Investigations of the effect of hydrogen in an argon glow discharge", J. Analytical Atomic Spectrometry, (published on the Web 8-4-2000), אול או און און און און און און און און און                                                         | th)    |  |  |  |  |
| WAL                                               |               | KURAICA et al., "Line shapes of atomic hydrogen in a plane-cathode abnormal glow discharge", Physical Review, 46, pp. 4429-4432. (1992), (no month)                                                                                                             |        |  |  |  |  |
| WAL                                               |               | KUŔUNCZI <i>et al.</i> , "Hydrogen Lyman-α and Lyman-β emissions from high-pressure microhollow cathode discharges in Ne-H <sub>2</sub> mixtures", <i>J. Phys. At. Mol. Opt. Phys.</i> , <b>32</b> , pp. L651-L658, (1999), <i>Cho month</i>                    |        |  |  |  |  |

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|-----------------------|-------------------------------|--------|---|
| Examiner<br>Signature | WAYNE A LANGE Date Considered | 7-6-01 | / |

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<sup>&</sup>lt;sup>1</sup> Unique citation designation number. <sup>2</sup> Applicant is to place a check mark here is English language Translation is attached.

PTO/SB/08B (Modified)

|           |                           |         |              | PTO/S6/066 (Modified   |            |  |  |
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| Substitut | /<br>e for form 1449B/PTC | )       | <del></del>  | Complete if Known      |            |  |  |
| RADER     | 0 101 101111 1440011 10   |         |              | Application Number     | 09/009,837 |  |  |
| IN        | FORMATIO                  | N DI    | SCLOSURE     | Filing Date            | 1/20/1998  |  |  |
| SI        | <b>TATEMENT</b>           | BY A    | APPLICANT    | First Named Inventor   | Mills      |  |  |
|           |                           |         |              | Group Art Unit         | 1745       |  |  |
|           | (use as many s            | heets a | s necessary) | Examiner Name          | Langel     |  |  |
| Sheet     | 2                         | of      | 2            | Attorney Docket Number | 62-226-8AO |  |  |

|                       |                          | OTHER PRIOR ART — NON PATENT LITERATURE DOCUMENTS                                                                                                                                                                                                               |       |
|-----------------------|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| Examiner<br>Initials* | Cite<br>No. <sup>1</sup> | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. |       |
| WAL                   | -                        | JOYCE et al., "Ion distribution functions in an Ar-CI ECR discharge", Plasma Sources Sci. Technol., 9, pp. 429-436, (2000), (no month)                                                                                                                          | CEIN  |
| YAL                   |                          | KAWAI et al., "Electron temperature, density, and metastable-atom density of argon electron-cyclotron-resonance plasma discharged by 7.0, 8.0, and 9.4 Ghz microwaves", J. Vac. Sci. Technol. A, 18, pp. 2207-2212, (2000) Cho month                            |       |
| WAL                   |                          | ABRAMOVA et al., "Tornado-type closed magnetic trap for an electron cyclotron resonance ion source", Review of Scientific Instruments, 71, pp. 921-923, (2000), more                                                                                            | +h)   |
| WAL                   |                          | MEULENBROEKS et al., "The argon-hydrogen expanding plasma: model and experiments", Plasma Sources Sci. Technol., 4, pp. 74-85 (1995).                                                                                                                           | )<br> |
| WAL                   | •                        | MEULENBROEKS <i>et al.</i> , "Influence of molecular processes on the hydrogen atomic system in an expanding argon-hydrogen plasma", <i>Phys. Plasmas</i> , <b>2</b> , pp. 1002-1008 (1995), <i>Cno month</i> )                                                 |       |
| WAL                   |                          | RUDD et al., "Backward Peak in the Electron Spectrum from Collisions of 70-ke V Protons with a Target from a Hydrogen-Atom Source", The American Physical Society, 68, pp. 1504-1506. (1992)                                                                    |       |
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| Examiner<br>Signature | WAYNEA LANGE Date Considered | 7-6-01 |
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